VULCAN

INSTALLATION & OPERATION MANUAL

HGB(M) AND GHCBS GAS CHARBROILERS

MODEL

HGB34	*ML-27850*
HGB50	*ML-27851*
HGB60	*ML-27852*
HGB71	*ML-27853*
HGB34M	*ML-27885*
HGB50M	*ML-27886*
HGB60M	*ML-27887*
HGB71M	*ML-27888*
GHCB34S	*ML-52245*
GHCB51S	*ML-52247*
GHMCB34	*ML-52244*
GHMCB51	*ML-52246*

DESIGN CERTIFIED

For additional information on Vulcan-Hart Company or to locate an authorized parts and service provider in your area, visit our website at www.vulcanhart.com

U.S.A.: VULCAN-HART COMPANY, P.O. BOX 696, LOUISVILLE, KY 40201-0696, TEL. (502) 778-2791
CANADA: HOBART FOOD EQUIPMENT GROUP CANADA NORTH YORK (ONTARIO) M3A 1B1

FORM 35600 (Formerly 30851 for GHCB and 28496 for HGB) (Mar. 2003)

IMPORTANT FOR YOUR SAFETY

THIS MANUAL HAS BEEN PREPARED FOR PERSONNEL QUALIFIED TO INSTALL GAS EQUIPMENT, WHO SHOULD PERFORM THE INITIAL FIELD START-UP AND ADJUSTMENTS OF THE EQUIPMENT COVERED BY THIS MANUAL.

POST IN A PROMINENT LOCATION THE INSTRUCTIONS TO BE FOLLOWED IN THE EVENT THE SMELL OF GAS IS DETECTED. THIS INFORMATION CAN BE OBTAINED FROM THE LOCAL GAS SUPPLIER.

IMPORTANT

IN THE EVENT A GAS ODOR IS DETECTED, SHUT DOWN UNITS AT MAIN SHUTOFF VALVE AND CONTACT THE LOCAL GAS COMPANY OR GAS SUPPLIER FOR SERVICE.

FOR YOUR SAFETY

DO NOT STORE OR USE GASOLINE OR OTHER FLAMMABLE VAPORS OR LIQUIDS IN THE VICINITY OF THIS OR ANY OTHER APPLIANCE.

WARNING: IMPROPER INSTALLATION, ADJUSTMENT, ALTERATION, SERVICE OR MAINTENANCE CAN CAUSE PROPERTY DAMAGE, INJURY OR DEATH. READ THE INSTALLATION, OPERATING AND MAINTENANCE INSTRUCTIONS THOROUGHLY BEFORE INSTALLING OR SERVICING THIS EQUIPMENT.

IN THE EVENT OF A POWER FAILURE, DO NOT ATTEMPT TO OPERATE THIS DEVICE.

MODULAR CHARBROILERS MUST BE MOUNTED ON NONCOMBUSTIBLE LEVEL SURFACE. LEGS AND CASTERS ARE NOT AVAILABLE ON MODULAR CHARBROILERS.

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Installation, Operation and Care of HGB(M) and GHCBS Gas Charbroilers

SAVE THESE INSTRUCTIONS

GENERAL

Vulcan-Hart Gas Charbroilers feature heavy-duty, cast-iron burners; input rating is 16,000 Btu per burner. Each burner is controlled by an adjustable gas valve. Baffles suspended beneath the burners reflect the heat upward, maintaining a cool zone under the burner. Special cast-alloy radiants are located directly above each burner to maintain uniform temperature. Radiants are easily removed for cleaning when cool.

Heavy-duty, cast-iron top grates (5 5/16" wide) (135 mm) are reversible to allow all or part of the cooking grid surface to be level or sloped. Grooves, cast in the top grates, permit fat runoff and reduce flaring when tilted toward the front.

The gas control valves can be adjusted to provide ideal sectional broiling results.

HGB AND GHCB SERIES CHARBROILERS

Model	Width (inches) (mm)	Number of Burners	Btu Input Rating
HGB34(M)/GHCB34S	34 (864)	6	96,000
HGB50(M)	50 (1270)	9	144,000
GHCB51S	51 (1295)	9	144,000
HGB60(M)	60 5/8 (1539)	12	192,000
HGB71(M)	71 3/8 (1814)	14	224,000

Large grease drawers (removable for cleaning) are below the cool zone for reduced smoking.

FEATURES AND FINISH OPTIONS

Feature	Cast Iron	Stainless Steel
Burners	Std.	N.A.
Top Grates	Std.	N.A.
Grease Drawer Front	N.A.	Std.
Front Control Panel	N.A.	Std.
Adjustable 6" (152 mm) Legs	N.A.	Opt. (HGB and GHCBS)
Storage Cabinet, Front	N.A.	Std. (HGB and GHCBS)

ACCESSORIES

- Stainless steel splasher guard (HGB and HGBM only)
- 12" work shelf (HGB and HGBM only)
- Four swivel casters (HGB and GHCBS only)
- Griddle plate 18" D x 13 3/4" W x 1/2" Thk. (HGB and HGBM only)
- Banking kit—joins any two charbroilers together
- Grate lifter
- Rod grate (1/2" steel rod on 3/4" centers) in lieu of cast-iron grate
- Rod grate scraper
- 1 1/4" and 3/4" gas flex hose and quick disconnect 4' and 5' (GHCBS)
- Flanged stainless steel feet (GHCBS)
- 3/4" gas pressure regulator (specify gas type, nat. or LP) (GHCBS)
- 1 1/4" gas pressure regulator (specify gas type, nat. or LP) (GHCBS)
- 3/4" gas shutoff valve (GHCBS)
- 1 1/4" gas shutoff valve (GHCBS)
- Manifold union wrench (GHCBS)

INSTALLATION

Before installing, verify that the type of gas (natural or propane) agrees with the specifications on the data plate located behind the lower front cover, riveted to the center support of the burner box bottom (HGB models), or between the grease pan guides, riveted to the left corner of the lower front cover (GHCB models). Be sure the unit is built for the installation elevation.

UNPACKING

The charbroiler was carefully inspected before leaving the factory. The transportation company assumes full responsibility for safe delivery upon acceptance of the shipment. Immediately after unpacking, check for possible shipping damage. If the charbroiler is found to be damaged after unpacking, save the packaging material and contact the carrier within 7 days of delivery.

Do not use the drawers or handles to lift or move the charbroiler.

LOCATION

The equipment area must be kept free and clear of combustible substances. A minimum 2" (51 mm) of clearance to combustibles must be provided at the rear of all broilers; no side clearance is required for combustibles or noncombustibles. The HGB(M) is to be installed only on noncombustible floors. The GHCBS is suitable for installation on combustible floors.

Install the charbroiler in an area that has sufficient air supply for combustion of the gas at the burners. Provide adequate clearance for air openings into the combustion chamber. Do not obstruct the flow of combustion and ventilation air.

Do not permit fans to blow directly at the charbroiler and, wherever possible, avoid open windows next to the sides or back. Avoid wall-type fans that create air cross currents within the room.

Legs

Legs (6-inch [152 mm] stainless steel) or casters are factory assembled onto the bottom of the charbroiler as specified on order.

Casters (Optional)

Casters may be ordered either two fixed and two swivel with brake.

Modular Broilers

Models HGB34M, HGB50M, HGB60M and HGB71M must be installed on a noncombustible, level counter or stand. No adjustment is provided.

When a modular broiler is installed on a counter, it must be sealed to the counter with an NSF-approved sealant.

INSTALLATION CODES AND STANDARDS

Install this equipment in accordance with:

In the United States

1. State and local codes, or in the absence of local codes, with:
2. National Fuel Gas Code, ANSI-Z223.1 (latest edition), available from The American Gas Association, Inc., 1515 Wilson Boulevard, Arlington, VA 22209.
3. National Electrical Code ANSI/NFPA70 (latest edition) (if applicable).

In Canada

1. Local codes.
2. CSA Standard C22.2 No. 3 Electrical Features of Fuel Burning Equipment (latest edition).
3. CAN/CGA-B149.1 National Fuel Gas Code (latest edition), available from The Canadian Gas Association, 178 Rexdale Rd., Etobicoke, Ontario, Canada M9W 1R3.

For an appliance equipped with casters, instructions that (1) the installation shall be made with a connector that complies with the Standard for *Connectors for Movable Gas Appliances, ANSI Z21.69* or *Connectors for Moveable Gas Appliances, CAN/CGA-6.16*, and a quick-disconnect device that complies with the Standard for *Quick-Disconnect Devices for Use With Gas Fuel, ANSI Z21.41* or *Quick Disconnect Devices for Use with Gas Fuel, CAN1-6.9*, (2) adequate means must be provided to limit the movement of the appliance.

Battery Installation (GHCB Only)

Since January 5, 1998, Vulcan-Hart appliances have changed from using Stockham gas unions to Ward (Fig. 1). If you are installing a new battery range to an existing field appliance, the union on the existing field appliance must be checked against the union being used on the new range. The union manufacturer's name around the face surface of the union nut must match. If the new range has been shipped using a Ward union and the old appliance has something different—i.e., Stockham—it must be replaced with a Ward union. Failure to replace this union could result in a gas leak.

Extra Ward unions must be ordered through the Vulcan-Hart Company Parts Depot.

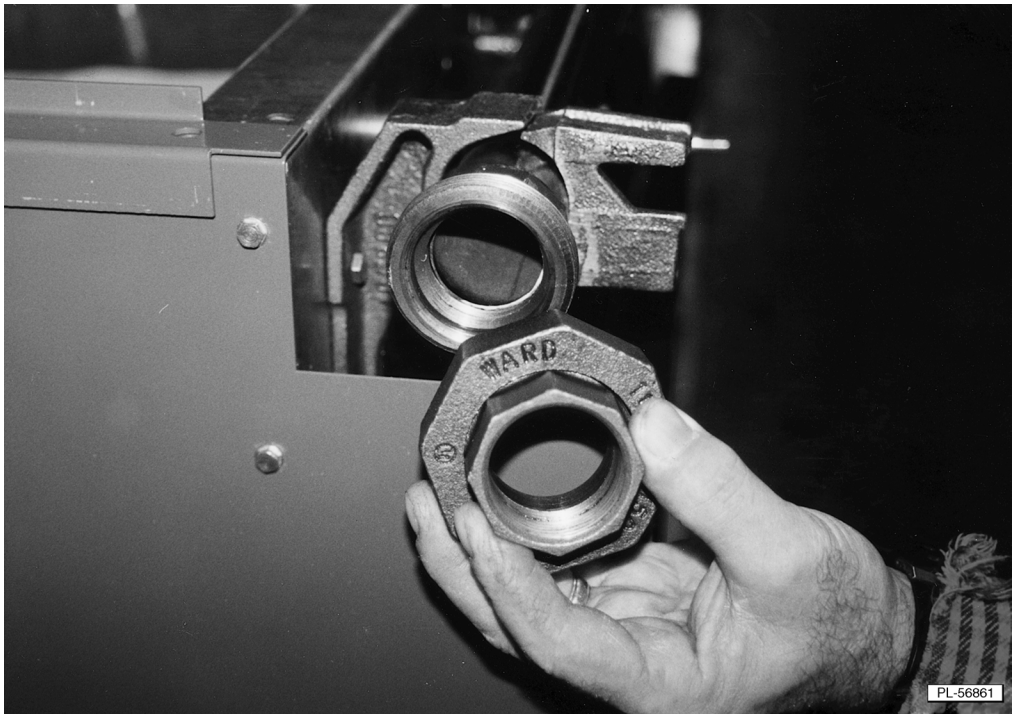

Fig. 1

ASSEMBLY

Burners, radiants and top grates are shipped inside the cabinet and must be assembled during installation (Fig. 2).

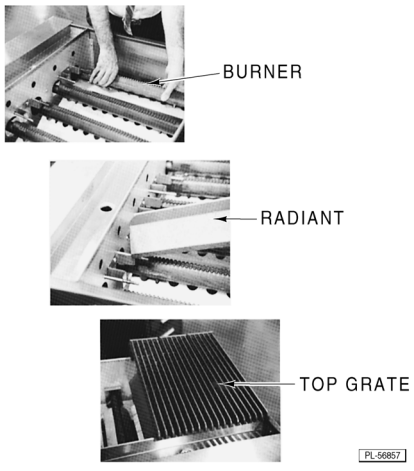

Fig. 2

GAS CONNECTIONS

CAUTION: All gas supply connections and any pipe joint compound must be resistant to the action of liquefied petroleum gases.

The gas inlet is located at the middle rear (offset to right on HGB71). Codes require that a gas shutoff valve (not included) be installed in the gas line ahead of the charbroiler. The gas supply line must be 1 1/4" (32 mm) NPT (inside diameter). Make sure the pipes are clean and free of obstructions, dirt and piping compound.

WARNING: PRIOR TO LIGHTING, CHECK ALL JOINTS IN THE GAS SUPPLY LINE FOR LEAKS. USE SOAP AND WATER SOLUTION. DO NOT USE AN OPEN FLAME.

After piping has been checked for leaks, fully purge gas pipes to remove air.

CASTER-EQUIPPED CHARBROILERS

If the charbroiler is equipped with casters, the gas connector (not supplied by Vulcan-Hart) must comply with the Standard for Connectors of Movable Gas Appliances, ANSI-Z21.69 (latest edition), and CAN/CGA-6.16 (latest edition) and a quick-disconnect device that complies with the Standard for Quick-Disconnect Devices for Use With Gas Fuel, ANSI-Z21.41 (latest edition) and CAN/CGA1-6.9 (latest edition).

Provide a gas line strain relief to limit movement of the charbroiler. Do not depend on the connector and/or any quick-disconnect device or its associated piping to limit the appliance movement. Attach the strain relief to the rear of the charbroiler (Fig. 3).

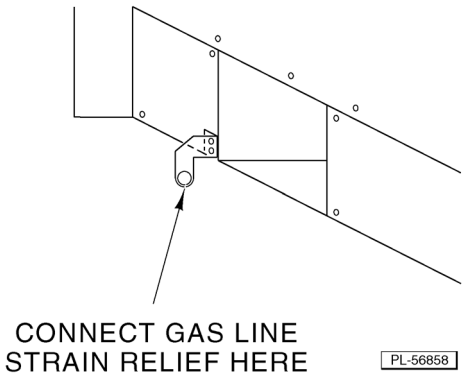

Fig. 3

If it is necessary to disconnect the strain relief, turn off the gas supply before disconnection.

Reconnect the strain relief before turning the gas supply on and returning the unit to its installation position.

GAS PRESSURES AND ORIFICES

The standard orifices are set at 6" W.C. (Water Column) pressure for natural gas and 10" W.C. (Water Column) pressure for propane.

TESTING THE GAS SUPPLY PIPING SYSTEM

When test pressures exceed 1/2 psig (3.45 kPa), the charbroiler and an individual shutoff valve must be disconnected from the gas supply piping system.

When test pressures are 1/2 psig (3.45 kPa) or less, the charbroiler must be isolated from the gas supply piping system by closing its individual shutoff valve.

LEVELING THE CHARBROILER

Once gas connections have been made, place a spirit level on top of the charbroiler. Adjust the legs to make sure that the charbroiler is level front to back and side to side in the final installed position.

No adjustment is required for modular broilers.

FLUE CONNECTIONS

The charbroiler must be located under a hood that has an adequate connection to an exhaust duct. The hood must extend 6" (152 mm) beyond charbroiler sides.

Adequate ventilation must be provided and must comply with NFPA Standard #96 (latest edition) and with local codes.

Clearance above the charbroiler should be adequate for products of combustion to be removed efficiently. An 18" (457-mm) minimum clearance should be maintained between the flue vent and the filters of the hood venting system.

Adequate air should be provided in the kitchen to replace air taken out by the ventilating system. This will prevent charbroiler function from being affected by a reduced atmospheric pressure.

CLEAN BEFORE FIRST USE

Using a noncorrosive, grease-dissolving cleaner, clean the protective metal oils from all surface parts. Follow the directions of the cleaner manufacturer. Rinse all parts thoroughly and wipe dry with a soft clean cloth. Reseason cast-iron parts immediately to prevent rusting.

Seasoning

Lightly season the top grates and the griddle and the backsplash, if present, with a thin layer of cooking oil. This should also be done after every cleaning.

OPERATION

WARNING: HOT PARTS CAN CAUSE BURNS. USE CARE WHEN OPERATING THE BROILER.

LIGHTING THE MANUAL GAS PILOT

Adjustment of the pilot light must be performed by a qualified Vulcan-Hart installation or service person. The flame adjustment must be made at the time of installation.

1. Turn main gas supply ON.
2. Wait 30 seconds and, using a lighted taper, light the pilots. The pilot for each burner must be lit (Fig. 4).
3. If pilot fails to light, turn main gas supply OFF. Wait 5 minutes and repeat.

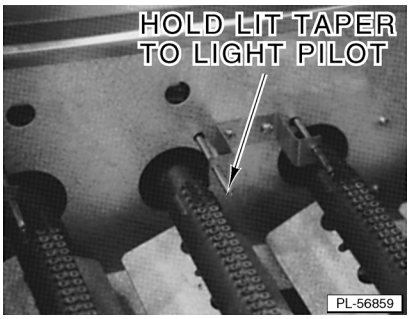

Fig. 4

Nightly Shutdown

Turn burner valves OFF; pilots will remain lit.

Complete Shutdown

1. Turn burner valves OFF.
2. Turn main gas supply OFF; pilots will go out.

CONTROLS (FIG. 5) – HGB(M) BROILERS

OFF — Horizontal when off.

ON — Turn valve handle counterclockwise 90 degrees so it is vertical to open the burner gas valve completely. Adjust the valve between OFF and ON positions to moderate the heat.

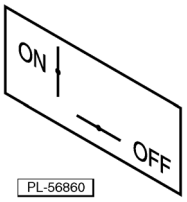

Fig. 5

CONTROLS (FIG. 6) – GHCBS BROILERS

OFF — Turn the knob to the right.

LO — Turn the knob to the left.

HI — Turn the knob straight up to the 12-o'clock position.

The burner heat may be controlled by turning the valve knob anywhere between the OFF and LO positions. The burner heat will be more intense between OFF and HI and less intense between HI and LO.

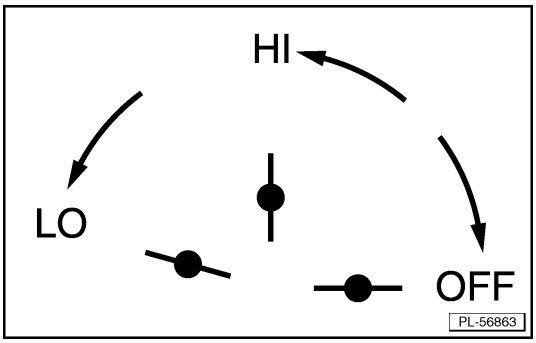

Fig. 6

Preheat – HGB(M) and GHCBS Broilers

Turn burners fully on for 20 to 25 minutes to allow the broiler to preheat. Valves should be turned to a lower position to maintain grid temperature between 525°F and 625°F (274°C and 330°C) for optimum broiling.

CAUTION: Leaving the valves fully on beyond the recommended preheat time will produce grid temperatures above 1000°F (538°C), which can cause radiants to warp.

Positioning the Top Grates

The top grates have two positions. With one side up, the grids are horizontal (flat). With the other side up, the grates slope toward the front. Use the sloped grate for most broiling to allow the groove on each side of the grid bars to catch the melted fat and allow it to flow to the trough in front. The grease will then flow through an opening to the grease drawer.

Do not allow the meat being broiled to catch fire as this results in a poor flavor. Fatty meats may require reduced temperatures to minimize flames.

CLEANING

- Keep the broiler clean.
- Clean the grate grooves with the wire brush provided.
- Empty the grease drawer frequently.

Top Grates

Clean the top grates daily on both the top and bottom surfaces with a good wire brush or burlap or other grease-absorbing material to remove spillover, grease and so forth before it burns in. Avoid a crust on the top of the grill: It looks unsightly and slows cooking speed (scrape off if necessary). Burn off grates at full input after cleaning. Season grates before cooking, see Seasoning on page 8.

Burner Radiants

To prevent continuous smoking, keep the charbroiler clean. Never allow grease or fat to accumulate. Clean burner radiants daily with a good wire brush. The radiants may be cleaned in place or removed for a more thorough cleaning. Steel wool may be used for more stubborn spots.

Grease Trough and Drawer

Empty and clean the grease trough, and drain the drawer thoroughly at least once every day.

Exterior Surfaces

Clean all exposed surfaces of the entire charbroiler thoroughly at the end of each day. Stainless steel may be cleaned with a damp cloth; stubborn soil may be removed with detergent and warm water.

MAINTENANCE

WARNING: HOT PARTS CAN CAUSE BURNS. USE CARE WHEN MAINTAINING THE BROILER.

BURNERS

If, after a period of satisfactory operation, burner flame characteristics should change or length of flame should be reduced, burner ports may have become restricted. Burners should be cleaned at least every 60 days and more often if required. To clean burners, remove and boil in a strong solution of lye water for about 15 minutes. Ports can be opened with a sharp-pointed instrument or proper-sized drill bit. Be careful not to increase the size of the burner ports.

If the mixer openings or pilot orifices need cleaning, contact your Vulcan gas service technician. This should be done at least every 6 months and more often if necessary.

SERVICE AND PARTS INFORMATION

To obtain service and parts information concerning this oven, contact the nearest service agent or call (800) 298-1862 in the U.S.A. or (800) 444-4764 in Canada.